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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,725	02/20/2004	Koichiro Nagata	Q79639	3628

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SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER
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DESCHERE, ANDREW M

ART UNIT	PAPER NUMBER
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2836

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

5

<b>Office Action Summary</b>	<b>Application No.</b> 10/781,725	<b>Applicant(s)</b> NAGATA, KOICHIRO	
	<b>Examiner</b> ANDREW M. DESCHERE	<b>Art Unit</b> 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed 26 December 2007 has amended claims 1, 8, and 13; claims 24 and 25 have been added. Examiner's objection to claim 8, regarding informalities, is withdrawn.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: the final line of claim 1 recites the limitation "said display", but should state "said display means". Appropriate correction is required.

Claims 9 and 20 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 9 and 20 recite the limitation, "wherein said lighting [device, means] is disposed outside said display [means]". This limitation fails to further limit the subject matter of the independent claims 1 and 13, which state "wherein said lighting [device, means] is external to said display". The examiner views the claim terminology of "outside" and "external" to be synonymous.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 8-11, 13, 15-22, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin (US 5,078,476) and Beard (US 5,747,938) in view of Weindorf (US 6,396,217).

Shin discloses a backlight controller for a liquid crystal display [Figure 2]. A use detection means (pulse generating member 1) puts out a use detection signal (pulse signal) when a display means is placed in a use state (there is a video signal 7). An optical limitation means (the backlight power controller) limits light emitted out of a lighting means (backlight 2) incident upon a screen of the display means (the liquid crystal display) according to the use detection signal. [column 1, lines 37-53; column 3, lines 5-18; column 4, lines 15-33 and 57-63].

However, Shin discloses that the optical limitation means limits light emitted out of the lighting means only when the use detection signal indicates that the display is not in use. Beard discloses an automatic controller for the backlight of a liquid crystal display [Figure 1; column 2, lines 30-32]. The control circuitry limits the light emitted out of a lighting means (electroluminescent panel 10) incident upon a screen of the display means (the liquid crystal display) while the display means is in use (the light output of the electroluminescent panel is adjusted based upon ambient light levels) [column 2, line 59 to column 3, line 15].

A combination of Shin and Beard would provide a controller for the backlight of a liquid crystal display that limits the output of the backlight according to ambient light levels, when a video signal is detected. It would have been obvious to one of ordinary skill in the art at the time of the invention to make such a combination in order to limit power consumption by turning off the lighting means when the display means is not in use (Shin; column 1, lines 28-34) and limiting the lighting means's output according to the intensity of the ambient light (Beard; column 3, lines 16-28).

The combination of Shin and Beard above teaches a backlight controller, but there is no suggestion to use a light external to the display, nor in a vehicle. Weindorf teaches a brightness error reduction for a lighted display. Although Weindorf is primarily drawn to a backlight display device for use in a vehicle dashboard, navigation system, or control panel, there is a suggestion that a frontlit display may be implemented [column 4, lines 9-51]. Since a vehicle draws from a limited power supply (a battery), it would have been obvious to one of ordinary skill in the art at the time of the invention to use the backlight controller taught by a combination of Shin and Beard to limit power consumption of the lighted displays of Weindorf.

With regard to claims 3 and 15, Shin discusses as prior art backlight apparatuses that turn on with no regard to the existence of a video signal. As such, when an LCD TV is turned on, the pulse generating member will turn on the backlight.

With regard to claims 4 and 16, the use detection signal (pulse signal) of Shin is indicative of a video signal [column 1, lines 37-53].

With regard to claims 5, 6, 17, and 18 in the combination of Shin and Beard, the optical limitation means taught by Beard (responsive to ambient light levels) will only be active while the use detection signal of Shin indicates that a video signal is present.

With regard to claims 8 and 19, the invention of Beard may be implemented in a portable (i.e., movable) piece of equipment [column 1, lines 20-38]. The teachings of Shin would further enhance battery life for a portable electronic device with a backlit liquid crystal display.

With regard to claim 11 and 22, a switching device in Shin, transistor TR24, is responsive to the presence of a video signal input [column 3, lines 5-15; column 4, lines 52-56].

Claims 2 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin, Beard, and Weindorf in view of Kurzman (US 5,057,977).

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The combination of Shin, Beard, and Weindorf above teaches a frontal light controller, but there is no suggestion that the backlight may turn on when the "display means is pulled out form an accommodating means". Kurzman teaches a pull-out lighted display such that a light source associated with a display illuminates when the display is pulled out of a housing. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Shin, Beard, Weindorf, and Kurzman to further power consumption by preventing backlighting means if either a display has no video input or is not placed in a viewable position, while limiting the intensity of the backlight based upon ambient light conditions.

Claims 12 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin, Beard, and Weindorf in view of Hyman (US 5,637,093).

The combination of Shin, Beard, and Weindorf above teaches a frontal light controller, but there is no suggestion to turn on the light when the display is not in use. Hyman discloses a selective controller for a backlight. A feature of Hyman is a means for generating an alarm in response to an alarm condition; if an alarm message is generated, a backlight will be activated [column 1, lines 26-42; column 12, lines 23-30]. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this aspect of Hyman in the combination of Shin, Beard, and Weindorf to allow the backlight controller to inform the user of an alarm condition even if the liquid crystal display is not currently in use.

### ***Response to Arguments***

Applicant's arguments filed 26 December 2007 have been fully considered but they are not persuasive. The applicant's arguments, see pages 8-9, are drawn to independent claims 1 and 13, with respect to the cited prior art of Shin and Beard. The applicant contends that

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neither Beard nor Shin suggests limiting light emitted out of a lighting means and incident upon a display, the lighting means external to the display. The examiner agrees that such a teaching is not found in Beard or Shin. However, the previously cited prior art of Weindorf discloses limiting light emitted from the lighting means of a frontlit display, as found in the examiner's prior rejections of claims 9, 10, 20, and 21 (see page 5 of the office action dated 24 July 2007). Independent claims now stand rejected under the combination of Beard, Shin, and Weindorf.


### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW M. DESCHERE whose telephone number is (571)272-8391. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMD

  
MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2836